INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Class C07K 14/16	ification ⁶ :	A1	(11) International Publication Number: WO 99/24465 (43) International Publication Date: 20 May 1999 (20.05.99)
08/966,987 10 08/967,148 10 08/967,403 10 08/967,708 16 08/976,741 24 60/089,580 17 60/089,581 17 09/100,521 18 09/100,529 18 09/100,631 18 09/100,762 18 09/100,763 18 09/100,763 18	10 November 1998 (0 November 1997 (10.11.9 4 November 1997 (24.11.9 7 June 1998 (17.06.98) 8 June 1998 (18.06.98)	(10.11.9 (10	(75) Inventors/Applicants (for US only): SODROSKI, Joseph G. [US/US]; 10 Ashland Place, Medford, MA 02155 (US). WYATT, Richard, T. [US/US]; 11 Delphi Circle Andover, MA 01810 (US). KWONG, Peter, D. [US/US]: Apartment 403, 352 West 15th Street, New York, NY 10011 (US). HENDRICKSON, Wayne, A. [US/US]; 161 Mt. Hope Boulevard, Hastings-on-Hudson, NY 10706 (US). FARZAN, Michael [US/US]; Apartment 6, 108 St Paul Street, Brookline, MA 02146 (US). (74) Agents: EISENSTEIN, Ronald, I. et al.; Dike, Bronstein Roberts & Cushman, LLP, 130 Water Street, Boston, MA 02109-4280 (US). (81) Designated States: AU, CA, JP, US, European patent (AT, BE CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC NL, PT, SE).
Binney Street, Boston, 1 OF COLUMBIA UNIV	designated States excep NCER INSTITUTE [US) MA 02115 (US). THE TR PERSITY IN THE CITY (12) 116th Street & Broadw	US]; A RUSTEE OF NE	Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: STABILIZED PRIMATE LENTIVIRUS ENVELOPE GLYCOPROTEINS

(57) Abstract

A modified polypeptide corresponding to an envelope glycoprotein of a primate lentivirus is described. The polypeptide has been modified from the wild-type structure so that it has cysteine amino acid residues introduced to create disulfide bonds, a cavity is filled with hydrophobic amino acids, a Proresidue is introduced at a defined turn structure of the protein, or the hydrophobicity is increased across the interface between different domains, while retaining the overall 3-dimensional structure of a discontinuous conserved epitope of the wild-type protein. Preferably, the polypeptide has more than one of those characteristics. Preferably, the primate lentivirus is HIV, and the protein is HIV-1 gp120.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ.	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	· IE	Ireland	MN	Mongolia ·	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM ·	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		